

SP-1 Primer

PRODUCT TYPE

SP-1 is a 1.46 refractive index Solvent Based Primer formulated to enhance adhesion of siloxane hardcoats on polycarbonate, cast acrylates, and other plastic substrates.

PROPERTIES

- Adhesion to a variety of plastics types including polycarbonate
- Rapid drying
- Optically transparent

SAFETY AND EXPOSURE

All users must read and understand the Safety Data Sheet prior to using this product.

LIQUID PROPERTIES at 25°C

PROPERTY	RANGE
Viscosity	4 – 12 centipoise (cP)
Specific Gravity	0.92 to 0.93
Solids, % by weight	2.8 – 3.3
pH	Slightly acidic
Compatible Solvents	1. Diacetone alcohol (DAA) 2. 2-methoxypropanol (Glycol Ether PM)
Maximum Dilution	50%

CURED COATING CHARACTERISTICS

Polycarbonate substrate, 0.3 microns

PROPERTY	RANGE
Light Transmittance	≥ 88% (polycarbonate); ≥ 99% (glass)
Haze	< 1.0%
Adhesion	100% (5B)
Thickness, microns	0.2– 0.7 (0.3)
Chemical Resistance	
Pass	Alcohols (ethanol/isopropanol), typical household cleaners, aliphatic (diesel/gasoline/heptane/cyclohexane), Concentrated/dilute alkali and acids
Fail	Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), dichloromethane

WARRANTY LIMITATIONS

The physical and performance properties cited herein represent typical values for SP-1 Primer, and are not meant as exact specifications. Customers must conduct their own validation testing to determine the appropriate use of this product for any purpose. This information is not to be considered a warranty or license to infringe upon any patented process or product; no liability for infringement arising out of such a use is assumed.

DELIVERY OPTIONS

The SP-1 Primer solution is available for shipment within two weeks of order confirmation, and is available in quart, gallon, five-gallon pail, and 55-gallon drum containers. Contact Exxene to select the best payment option and the optimum shipping method according to your preference and region. All charges, duties, and fees associated with the shipment and its contents are the responsibility of the customer.

APPLICATION PARAMETERS

PROPERTY	RANGE
Application Methods	
Dip	1 – 3.5 mm /second withdrawal rate
Spray	15 – 35 psi HVLP; fine tip
Flow Coat	As appropriate to flow system
Environment	
Temperature	16 – 30°C
Humidity	20 – 50 % RH
Dew point	Dew point must be at least 10 degrees lower than room temperature.
Air quality	Laminar, top-down flow < 5 cfm Particle count as appropriate (≤ Class 10,000)
Coating Temperature	Within 3° of Ambient temperature
Coating Filtration	Polyethylene or polypropylene; nominal media rated at 0.5 to 1.0 microns as a pre-filter; absolute media rated at 5.0 to 10.0 microns. <i>Filter all coating before use.</i>
Cure Conditions	15 – 30 minutes at 60°C 10 – 20 minutes at 80°C 5 – 15 minutes at 100 °C 3 – 10 minutes at 120 °C

EQUIPMENT PREPARATION

Compatible Materials: All equipment surfaces must be constructed of stainless steel, polyethylene, polypropylene or similar, chemical resistance substances. Mild steel, brass, copper, and polyvinyl chloride (PVC) or plasticizer-containing materials cannot be allowed to contact the coating solution.

Cleaning: All coating equipment must be thoroughly cleaned with a compatible solvent to remove all traces of other coatings, solvents, or old batches of the same product. After all residues have been removed from the equipment, multiple rinses utilizing 2-methoxypropanol (or a mixture of PM and DAA) is used to prepare the system for the introduction of filtered SP-1 Primer solution.

STORAGE SP-1 solution is stored at room temperature, or at refrigerated temperatures. When stored in the original, sealed container, the solution should be used within three years of the production date.

SUPPORT Contact Us via telephone at +1(361)991-8391, email Info@Exxene.com, or fax to +1(361)991-9057. We are located at 5939 Holly Road, Corpus Christi, TX 78414.